PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a new traffic control signal at the intersection of MD 32 and Progress Way in Carroll County, Maryland. MD 32 is considered to run in an a north/south direction.

II. INTERSECTION OPERATION

The intersection is to operate in a NEMA four (4) phase, full-traffic-actuated mode. There will be an exclusive/permissive left turn phase for the southbound movement of MD 32. The MD 32 through movements will operate concurrently. The Progress Way movements will operate alone with an actuated pedestrian movement across the north leg of the intersection.

An eight phase, full-traffic-actuated, solid state digital controller with intersection monitor and harness, battery back-up, video detection equipment, and (1) four-channel rack mounted time delay output loop detector amplifiers housed in a base mounted cabinet are to be installed at this location.

CONTACT LIST

The contact persons for District #7 are as follows:

Mr. John Concannon
Assistant District Engineer - Traffic
301-624-8140

Ms. Andrea Abend
Assistant District Engineer - Utility
301-624-8115

Mr. Dave Coyne
Assistant District Engineer - Maintenance
301-624-8105

Mr. Richard L. Daff
Chief, Traffic Operations Division
410-787-7630

The Power Company Representative is:
Baltimore Gas and Electric Company
7317 Parkway Drive South
Hanover, Maryland 21076
410-859-9070
WMS # 1244069

EQUIPMENT LIST

A. Equipment to be furnished by MD-SHA and installed by the Contractor.

Item No.	Quantity	Units	Description
	1	EA	Cabinet with telemetry (System cabinet) size 6
	1	EA	Controller ASC II with telemetry.
	63.25	SF	Flat sheet aluminum sign - yellow, orange, or silver. [1 each - 48 in. x 48 in. W-3-3 (ground mounted)] [1 each - 36 in. x 36 in. W-3-3 (ground mounted)] [2 each - 24 in. x 24 in. "NEW" (ground mounted)] [1 each - 36 in. x 42 in. R10-12 (mast arm mounted)] [1 each - 72 in. x 24 in. M95-1 (mast arm mounted)] [1 each - 30 in. x 30 in. W14-2 (ground mounted)] [2 each 9 in. x 12 in. R10-4(1) (pole mounted]
	92.50	SF	Flat sheet aluminum sign - blue or green. [2 each - 16 in. x Var. D-3(1) Dual Faced (mast arm mounted)] [1 each - 16 in. x Var. D-3(1) (mast arm mounted)] [2 each -30 in. x 96 in. D-3(3) (ground mounted)]

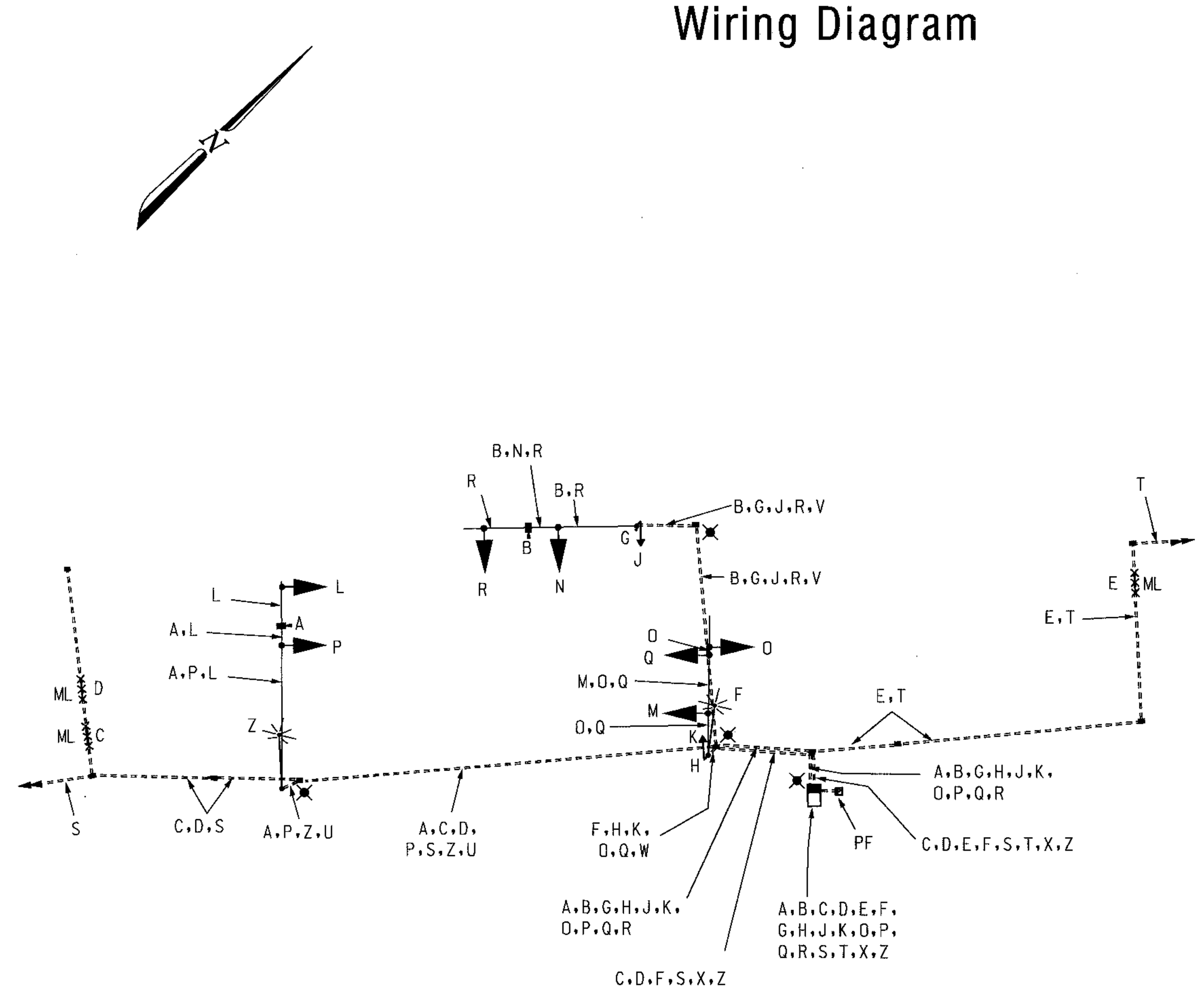
B. Equipment to be furnished and/or installed by the Contractor.
All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Item No.	Quantity	Units	Description
1001	3	EA	Maintenance of traffic per assignment.
2002	4	CY	Test pit excavation.
5001	60	LF	5 in. white Heat Applied Permanent Preformed Pavement Marking.
5002	125	LF	5 in. yellow Heat Applied Permanent Preformed Pavement Marking.
5003	425	LF	Removal of pavement markings by grinding.
5004	1	EA	Removal of pavement marking symbol by grinding.
5005	130	LF	12 in. white Heat Applied Permanent Preformed Pavement Marking.
5006	110	LF	24 in. white Heat Applied Permanent Preformed Pavement Marking
6002	10	LF	Depressed curb and gutter
8001	15	CY	Concrete for signal foundations.
8002	4	EA	12 in. pedestrian signal head section.
8014	1	EA	Control cable, 200 ft. Video detection.
8015	1	EA	Control cable, 300 ft. Video detection.
8028	32	SF	Relocate existing sign and post.
8042	15	LF	Wood sign supports 4 in. x 4 in.
8043	82	LF	Wood sign supports 4 in. x 6 in.
8044	275	LF	Stranded bare copper ground wire (No. 6 AWG).
8049	150	LF	3 in. [Schedule 80] PVC electrical conduit - bored.
8050	375	LF	4 in. [Schedule 80] PVC electrical conduit - bored.
8052	650	LF	3 in. [Schedule 80] PVC electrical conduit- trenched.
8053	65	LF	4 in. [Schedule 80] PVC electrical conduit - trenched.
8058	1	EA	Metered service pedestal.
~~8059~~	~~1~~	~~EA~~	~~Electrical utility service equipment (120/240, 60 Amps 1 phase, 3 wire). for an underground electrical service per MD-SHA Typ. 807-05.01~~
8061	25	LF	Electrical cable - 1 conductor No. 4 AWG - THHN/THWN
8065	3	EA	Non-Invasive Micro-loop probe with 500 ft lead-in cable.
8067	10	EA	Electrical handhole.
8069	80.75	SF	Install ground mounted sign.
8070	75.0	SF	Install overhead sign.
8071	2	EA	Video Detection Camera with mast arm mounting hardware.
8076	1	EA	Mast arm pole and 38 ft. mast arm.
8077	1	EA	Mast arm pole and 50 ft. mast arm.
8078	1	EA	Mast arm pole and 60 ft. mast arm.
8084	2	EA	250 watt HPS luminaire with photo cell.
8091	5	EA	Ground rod (3/4 in. x 10 ft. length).
8092	3	EA	8 in. black faced vehicular traffic signal head section.
8093	22	EA	12 in. black faced vehicular traffic signal head section.
8096	1	EA	Clean, cut, galvanize, and cap traffic signal structure.
8099	315	LF	Electrical cable - 2-conductor (No. 14 AWG).
8101	925	LF	Electrical cable - 5-conductor (No. 14 AWG)
8102	690	LF	Electrical cable - 7-conductor (No. 14 AWG).
8103	110	LF	Electrical cable - 2-conductor (No. 12 AWG) type in TC in.
8106	2	EA	Pedestrian pushbutton and sign assembly.
8107	2	EA	15 ft. lighting bracket arm for traffic signal structure.
8112	1	EA	Install controller and cabinet - base mount.
Neg.	2	EA	Remove sign.

Phase Chart

	1	2	3	4	5	6	7	8,9	
Phase 2 & 5	G ←G—	G ←G—	G	R	R	R	R	DW	
5 Change	G ←Y—	G ←Y—	G	R	R	R	R	DW	
Phase 2 & 6	G	G	G	G	G	R	R	DW	
2 & 6 Change	Y	Y	Y	Y	Y	R	R	DW	
Phase 4	R	R	R	R	R	G	G	DW	
4 Change	R	R	R	R	R	Y	Y	DW	
Phase Alt 4	R	R	R	R	R	G	G	WK	
Ped Clearance	R	R	R	R	R	G	G	FL/DW	
Alt 4 Change	R	R	R	R	R	Y	Y	DW	
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK	

Wiring Diagram



A, B } Video Detector Cable

C, D, E } Micro-loop Detector Lead-in Cable

F, Z } 2-Conductor Tray Cable (No. 12 A.W.G.)

G, H } 2-Conductor Electrical Cable (No. 14 A.W.G.)

J, K, L, M, N } 5-Conductor Electrical Cable (No. 14 A.W.G.)

O, P, Q, R } 7-Conductor Electrical Cable (No. 14 A.W.G.)

S — 12-Pair Voice Grade Telemetry Interconnect Cable (No. 19 A.W.G.) (Londontown Blvd./ Bartholow Road-Progress Way Run)

T — 12-Pair Voice Grade Telemetry Interconnect Cable (No. 19 A.W.G.) (Johnsville Road / Bennett Road - Progress Way Run)

U, V, W, X } Bare Copper Ground Wire (No. 6 A.W.G.)

PF — Proposed Underground Electrical Service By BGE

✱ — Proposed Grounding Rod

ML — Non-Invasive Micro-loop Detector

SHA: CL329A53/B53   TOD: AT717-33

The Traffic Group
The Traffic Group, Inc.
410-931-6600
Fax 410-931-6601

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information Plan)
MD 32 at Progress Way

DRAWN BY:	Frank Hoeckel	F.A.P. NO.	N/A	TS NO. 4410-GI	SHEET NO.
CHECKED BY:		S.H.A. NO.	AT7175185		
SCALE:	N/A	COUNTY:	Carroll	T.I.M.S. NO. G-641	
DATE:	March 14, 2005	LOG MILE:	06003204.07		2 OF 3

F:\2001\2001-0910\Des\Giplan.dgn 3/15/2005